

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



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| Applicant's or agent's file reference SF-1094 | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/JP2004/013723 | International filing date (day/month/year) 14.09.2004 | Priority date (day/month/year) 19.09.2003 |
| International Patent Classification (IPC) or national classification and IPC F21V7/22, B29D11/00, G02F1/13357 | | |
| Applicant SHOWA DENKO K.K. et al | | |

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ sent to the applicant and to the International Bureau a total of sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

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| Date of submission of the demand 07.03.2005 | Date of completion of this report 16.08.2005 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80293 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Bader-Arboreanu, A Telephone No. +49 89 2399-  |

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/013723

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-43 as originally filed

Claims, Numbers

1-16 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/013723

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

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|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-16 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-16 |
| Industrial applicability (IA) | Yes: Claims | 1-16 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V.

The following documents are referred to in this communication:

D1 = EP 0 859 933 A

D2 = PATENT ABSTRACTS OF JAPAN vol. 1999, no. 11, 30 September 1999 &
JP 11 149073 A

- 1. The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of independent claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.**

Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (par. [0026]-[0043]) a reflecting member (2, 2', 2'', 2''') for a surface light source (4,5) obtained by forming a white coating film on a surface having a prescribed shape.

The subject-matter of independent claim 1 differs from the disclosure of D1 in that it is not specified from which material the reflector member is made of.

The problem to be solved by the present invention may therefore be regarded as finding a material for the reflecting member that is thinner and lighter.

For solving this problem the skilled person would look at other reflecting members and would also see document D2 which discloses a reflecting member for illuminate a liquid crystal unit which is made from metal (par.[0035]).

The skilled person would therefore regard it as a normal option to use metal for the reflecting member described in document D1 in order to solve the problem posed, and doing so he would directly arrive to the subject-matter of claim 1.

- 2. The subject matter of independent claims 8, 15 and 16 does also not involve an inventive step in the sense of Article 33(3)PCT.**

Claim 8 discloses a process of producing a reflecting member which process is described with the features of the apparatus claim 1 and does not contain any additional features.

The supplementary features of claims 15 and 16 "a reflection board for a liquid crystal backlight" and "a liquid crystal unit" are also disclosed by document D1.

3. The subject-matter of dependent claims 2 - 7 and 9 - 14 does also not involve an inventive step in the sense of Article 33(3)PCT.

Dependent claims 2 - 7 and 9 - 14 does not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to inventive step.

4. Further remarques:

The number of independent claims (claims 1, 8, 15 and 16) in each category in the present application is such that the claims as a whole are not concise contrary to the provisions of Article 6 PCT.

The production process of the reflecting member is described on page 10 of the description as being a **bending** method or a **deep drawing** method and the reflecting member is shown in figures 1 and 2 as a thin metal sheet, this is in contradiction with the reflecting member disclosed in claim 1 as a **molded** metal part. This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear (Article 6 PCT).

Claims 2 to 7 are a repetition of claims 9 to 14.

Contrary to Rule 6.3(b) PCT, independent claims are not in the two-part form, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

Contrary to Rule 6.2(b) PCT, the features of the claim are not provided with reference signs placed in parentheses.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 and D2 is not mentioned in the description, nor is this document identified therein.